

PHILADELPHIA MEDICAL TIMES.

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ORIGINAL COMMUNICATIONS.

PAROTITIS, TRANSLATION TO TESTIS AND BRAIN, WITH THREATENED ACUTE MANIA—RECOVERY.

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G. W. D., 17 years old, of good physique, fair complexion, auburn hair, and heretofore in good health, with no known hereditary tendency to disease, called at my office August 16 last, complaining of sore throat. I examined his throat, and found the tonsils and pillars of the fauces slightly inflamed and swollen, but no fever or other constitutional disturbance. The next morning I found his tonsils and fauces still inflamed and swollen, some difficulty and pain in swallowing, jaws a little stiff and slightly swollen about the angles and below the ears, pulse accelerated, bowels slightly constipated, face flushed, and altogether feeling rather badly. He was ordered a diaphoretic, and warm flannel applied to the face and neck.

18th.—Very little change, except more swelling and pain at the seat of the parotid gland, and general malaise. Treatment continued the same.

19th.—Symptoms somewhat increased in intensity; more fever, temperature higher, pulse fuller and stronger—96 beats to the minute, jaws more stiff, throat quite sore, considerable difficulty in opening the mouth, tongue coated white, right testicle slightly swollen and painful on motion or to the touch, and less swelling on the right side of the face than on the left; bowels sufficiently open.

20th.—Fever increased, pulse 110, temperature 101.5°, face much swollen, swelling and pain of right testicle greatly increased; very restless; but little sleep during the night, with some delirium. Continued the diaphoretic, with warm flannel to the testicle and camphorated liniment to the right side of the face.

21st.—Fever high, pulse 120, and bounding; skin hot and dry, temperature 102.6°, tongue heavily furred, mouth dry and clammy, bowels constipated; no sleep, and quite delirious most of the night; constant nausea, with efforts at vomiting; testicle enormously enlarged, and extremely painful on the slightest motion. No priapism observed. Solution of citrate of magnesium was ordered, and to be repeated until free catharsis was produced. Diaphoretic continued; flaxseed-meal poultices to envelop the entire throat and sides of the jaws from ear to ear; warm flannel applied to the testicle, which was suspended by a roller of flannel; and lumps of ice to quench thirst allowed as desired.

22d, 11 A.M.—Perspired profusely during the night; clothes drenched; fever gone; temperature 99°, pulse 85, and soft; skin moist; bowels moved two or three times freely; quite comfortable; jaws and testicle still much swollen, but not so painful; tongue looks better; can swallow better.

5 P.M.—Expressed himself as feeling quite comfortable, and was doing well. There was every indication now that the disease had spent its force, that it would terminate favorably as usual, and that nothing more was to be feared.

23d, 11 A.M.—Still doing well, and convalescence seemed about to be established, except that he was rather restless and did not sleep soundly or continuously during the night, but was wakeful and fretful, complaining of little things that annoyed him; would ring for the servants at unusual times, and be very im-

patient until they obeyed his summons. His tongue continued pasty; still some desire for ice. Swelling of the face and testis decreased.

5 P.M.—No material change.

24th, 11 A.M.—Some symptoms of cerebral excitement developed during the past twelve hours. Sleeplessness; continued restlessness; exceedingly irritable on the slightest provocation; rapid and continued talking, which was very exhausting to him, and mostly upon one subject. He considered himself well, and strenuously resisted restraint. He had no desire for food; gulped down everything given him simply to get rid of it, or to please those giving it. Could not be induced to remain in bed; constant desire to get up and dress. Pulse 110, sharp and unsteady; eyes bright and staring, pupils contracted, tongue pasty, mouth clammy, surface cool, looked worn. Swelling of face and testicle subsiding. These symptoms continued for some days, without much change. We tried to treat the matter as if his peculiarities were simply the result of the usual and natural peevishness due to sickness and the debility following. We therefore disregarded them to a great extent, and only watched him, taking care not to cross him, but to satisfy his whims as far as possible, and wait results. I directed fifteen grains of bromide of potassium to be given him every two hours, with a drachm of elixir of valerianate of ammonium added, and enjoined decided rest and quiet.

27th, 11 A.M.—On calling as usual, his mother informed me in great alarm that George, in his weak and feeble condition, had slightly dressed, and left the house without the knowledge of any one; had gained access to the stable in a clandestine manner by climbing in the window, the door being locked; had saddled and bridled the most fractious of the horses, and ridden off they knew not whither. His father found him, after a wide search, in an exhausted condition on the street, about 2½ P.M., and sent him home in a street-car under the protection of a friend. At 5 P.M. I found him wild with excitement, with great cerebral disturbance, talking rapidly and warmly, but with some coherency, principally upon one subject, repeating it over and over again, as if his previous remarks had not been impressed upon his hearers, and occasionally with a smile and with seeming enjoyment; dwelling, also, largely upon his exploits during the day, with a desire to justify or to explain the cause of them. His pulse was 120, weak and tremulous; skin cool, head hot; a flush like that of hectic on his cheeks; cheeks hollow, eyes staring, pupils contracted, mouth clammy, requiring frequent sips of water to enable him to talk; restless, not easily restrained; not easily turned from his train of thought; swelling of the jaws nearly disappeared; swelling of the testis nearly gone. The bromide of potassium was increased to thirty grains every two hours, without the elixir of valerianate of ammonium, until sleep or quiet was produced; to be kept perfectly quiet, and his talk not encouraged.

28th, 11 A.M.—Met Dr. Basil Norris, U.S.A., in consultation, but we learned at our visit that after a rather restless night our patient had fallen asleep at 6½ A.M., and was still asleep, and we deemed it advisable not to awake him. At 3 o'clock P.M. he was still asleep and quiet.

29th, 11 A.M.—We were informed that our patient had slept until 6 P.M. the evening before, and most of the past night. We found him sitting with a young friend at a writing-table, laboring under great mental excitement about some letters he desired to write to friends, so he might get his mind clear of all such things, or "get them off his mind," as he would say. His friend sat perfectly resigned and under his control, and wrote whatever he dictated. He had a number before him ready

for the mail, and was still dictating more. His principal theme was his studies and his return to school at Exeter immediately, and he was constantly making his plans for the purpose. Another subject that seemed to irritate him was that he thought his father, who had obtained an appointment for him, desired him to go to the United States Naval Academy at Annapolis; he did not wish to go, and when his father dissipated that idea from his mind he seemed very much elated. He complained a good deal of headache, of weariness, of being easily fatigued, and seemed to appreciate the fact that his mental faculties were not under control. His pulse continued rapid, the surface cool, the head hot, and the mouth and tongue pasty. We directed the bromide to be continued, and our patient to be kept in his room and watched.

30th.—Slept most of the past night; somewhat refreshed, but still talks; still writing letters with the aid of his friend; still restless and irritable. He had no desire for food, but drank or sipped ice-water frequently. He would take a little fruit now and then, which he seemed to enjoy. He promised me he would write no more letters for a week, and put up his materials.

31st.—Little quieter; slept but little past night; still considerable disturbance of the functions of the brain; general condition about the same. He desires to go out, and can scarcely be restrained from doing so.

2½ P.M.—Had a consultation with Dr. C. H. Nichols, of the Asylum St. Elizabeth, D.C., in regard to the patient. We found him without amendment, and the diagnosis was fully confirmed that he was laboring under a high state of meningeal excitement or hyperæmia, influencing the brain to increased functional activity, due to translation or operation of the materies morbi of the mumps; and he was considered threatened and to be in great danger of acute mania. The bromide of potassium was directed to be continued, with hot sitz-baths, made stimulating by mustard, and cooling and evaporating applications to the head frequently through the day; not to be allowed to go out; not to be exposed to any bright light, but kept generally in a moderately dark room.

Sept. 3.—He continued with very little change to this date. His pulse varied from 100 to 110; temperature about normal, though to the touch the surface was cool, while he complained of cold feet and hot head. A hot brick had to be put to his feet frequently at night. His tongue continued pasty, with some thirst, and anorexia was almost complete.

4th.—Pulse 90, tongue disposed to clean, mouth moister, not so thirsty, the general circulation better, not quite so irritable, sleeps a little better. Treatment continued, though less frequently.

5th.—Still improving; pulse 78, tongue cleaning, eats better.

8th.—Out walking during the morning. Went to church yesterday. Seemed much better; was quiet and composed, and much less inclined to talk.

18th.—A decided change had taken place for the better. Had much improved in general health. The functions of the different organs were more regular, and normal; though he was still somewhat impatient and irritable.

20th.—His father called to see me, and said George had some return of excitement the day before. He had taken a ride on horseback with a lady, which had upset him. He said he was very restless during the night; imagined he saw objects entering the room; was quite timid, requiring him to remain with him all night; and he feared a return of the trouble. I directed him to give him the bromide again, which had been suspended for a day or two, and to keep him from any sources of excitement.

Oct. 1.—Had made frequent inquiries about the patient, and learned that he was daily improving in general health, daily becoming "more like himself," and had greatly improved in mental acumen, without any return of the aberration from which he had suffered.

22d.—Called, but found the patient out. His mother informed me his father desired, as he had so much improved, he should be engaged in some light occupation to amuse him as well as instruct him, and, though he did not wish him to take up a regular course of studies, thought the study of anatomy would be a pleasing pastime for him during the winter, which would afterwards probably lead to something more extensive. Consequently, on the 24th of October he matriculated at one of our medical colleges, and attended the course on anatomy.

June 20, 1874.—Received an appointment in the U.S. Coast Survey, and is now, July 16, on the Lakes in that capacity. His health, mental and physical, seems entirely re-established.

I have been induced to record this case of parotitis, because of the rarity of the sequelæ. I have been able to find but few cases of parotitis with brain-complications even hinted at, and the literature of the subject is so decidedly meagre that most of the authors who speak of it at all do so only as a probable result. Whatever may be the cause of the limited extent of the writings on this branch of the practice, whether from want of observation or otherwise, it is nevertheless true that, whenever this lesion is even mentioned, it is said to be of very unusual or rare occurrence; and its pathology is even now really a matter of conjecture or doubt.

Chelius, "System of Surgery," by South, vol. i., 1847, p. 167, gives the following as the literature of inflammation of the parotid, viz.:

Laghi, T., *Historia Epidemicæ Constitutionis, in quâ Parotides seroso glutine tumentes redduntur quæ Anno 1753 Bononiæ contigit in Comment.* Bonn, vol. v. p. 1.

Hamilton, R., *Account of Distemper by the Common People in England vulgarly called the Mumps*, in *Trans. of Royal Soc. of Edinburgh*, vol. ii. p. 59, 1790.

Hoff, *Diss. de Anginæ Parotidiæ*. Goetting., 1799.

Breurecke, *Diss. Anginæ Parotidiæ Descriptio pathologico-therapeutico*. Helmst., 1804.

Burns, Allen, *Observations on the Surgical Anatomy of the Head and Neck*. Edinburgh, 1811, octavo.

Good, Mason, M.D., *Study of Medicine*. Lond., 2d edition, 1825, vol. vii.

Since that period nothing has been written worthy to be distinguished as a monograph, though a very few isolated cases may be found in the journals, having reference more to the orchitis and other complications, as ovarian, uterine, or leucorrhœal, than to the brain. I have run over the journals for the past half-century, and am surprised to find so little bearing on this particular point. Our standard works and text-books are our only guides in the matter.

In the Catalogue of the Library of the Surgeon-General's Office, U.S.A., with an Alphabetical Index of Subjects, edition of 1872, there is nothing on parotitis as a distinct subject. In the edition for

1873 there is, I believe, but one in the English language, and but a few in the French language, and these are only theses for the doctorate. The following are those relating to metastasis, principally to the testes, and those of a sympathetic nature, and mostly connected with a typhoid state, viz.:

Rodburg, 1727; J. Joseph, 1792; Callenfels, 1815; Lortet, 1819; Delissalde, 1822; Rahwande, 1831; Brillat-Savarin, 1854; and Debize, 1869. The latter I have looked over,—viz.: Thèse pour le Doctorat en Médecine, de l'Etat Typhoid dans les Oreillons. Par François Debize, Paris, 1869,—and find that it makes no mention *per se* of metastasis to the brain. His principal proposition may be summed up in the following: "Nous considérerons les oreillons comme une maladie générale qui frappe le testicule au même titre que la parotide; la localisation de la maladie se fait, il est vrai, le plus souvent sur la région parotidienne, mais les autres déterminations morbides se font sous l'influence de la cause générale sur des tissus ayant une composition et des fonctions analogues." This thesis refers to the other writers, but nothing further is elicited bearing on the point at issue.

Dr. Harvey Lindsley, of this city, reports, in the *Stethoscope and Virginia Medical Gazette*, vol. i., 1851, pp. 15 and 16, two cases of mumps with metastasis to the brain, both terminating fatally. He says, "Cases of mumps with determination to the brain are so exceedingly rare that I do not recollect to have seen or read of more than three besides those referred to at the head of this article. Most of our popular writers on the practice of medicine, though men of extensive experience, have evidently never seen a case, while they still speak of it as of occasional occurrence. This is the fact with Good, Eberly, Dewees, McIntire, Wood, Watson, Tweedie, etc., and indeed the only author who speaks of this complaint as having come under his own observation is Dr. Dickson, of Charleston, in his able and interesting work published a few years since." These were doubtless cases of real cerebritis, as post-mortem examination of the second case revealed extensive cerebral congestion. They died within four days of attack.

From the leading works on the practice of medicine, I find only the following, briefly summarized:

Austin Flint (*Practice of Medicine*, 2d ed., 1867, p. 370) says, "The parotid gland appears to be the seat of the disease, but it evidently involves a constitutional morbid condition, and a special causation. . . . Occasionally during the progress of the disease, or when the affection of the parotid is about to disappear, swelling, pain, and soreness of one or both of the testes occur. This must be extremely rare. I have met with but a single example. In the female, it is stated, the mammary gland and the labia majora are liable to become affected. I have never met with an example. When parts other than the parotid are involved, it is not from a metastasis, but from the operation of the same internal morbid condition which occasions the parotitis. . . . The disease, except that it occasions discomfort, is always trivial. The popular apprehension of danger from 'taking cold'

in this disease is based on the idea that if the affection of the parotid be arrested a metastasis is apt to take place. There is little ground for this idea.

. . . The prognosis is always favorable."

In Reynolds's *System of Medicine*, vol. i., Lond., 1866, p. 229, Dr. Sydney Ringer, article "Parotitis," defines it to be "an acute febrile disease characterized by an anatomical lesion situated in one or both parotid glands, which runs a short course, and almost invariably terminates favorably. . . . Other organs besides the parotid and submaxillary may be affected. . . . The testicles, one or both, may suffer, while in the female the mammae, the labia majora, and uterus are the parts occasionally attacked. These complications, or metastases as they are called, usually make their appearance whilst the parotid and the submaxillary glands are enlarged; but, on the other hand, the swelling may subside and disappear from the glands, and not make its appearance elsewhere until a period varying from a few hours to one or two days has elapsed. . . . In mumps, have we primarily a general disease of which the local effects are the sequence, or, on the other hand, is the disease in the first instance local, and are the general symptoms dependent on such local mischief? In the present state of medical knowledge this question cannot be answered."

Niemeyer (vol. i. p. 436, *et seq.*) divides parotitis into two varieties: 1, idiopathic parotitis (mumps); 2, symptomatic or metastatic parotitis. He says, "Trustworthy observations render it most probable that the disease (idiopathic parotitis) spreads by contagion. It does not appear to us justifiable (with Rilliet) to consider mumps as an infectious disease, and the inflammation of the parotid gland the local expression of a constitutional disease, and to regard it as analogous to the affections of the skin that accompany the acute infectious diseases. We do not exactly know the ultimate anatomical changes of parotitis. . . . Nevertheless, . . . we may believe that it is chiefly or solely caused by serous exudation. Occasionally in the course of the disease one of the testicles is affected by an inflammation similar to that of the parotid. . . . And cases have also been recorded where, in the course of *idiopathic* parotitis, fatal meningitis has been developed. Infiltration with fibrous exudation and suppuration rarely occur in parotitis."

William Aitkin, M.D., Edinburgh (*Science and Practice of Medicine*, edited by Meredith Clymer, Philadelphia, 1866, vol. ii.), defines "mumps, parotitis," to be "an inflammation of the parotid gland, probably specific, and certainly in some cases contagious. . . . It is rare that the inflammation ends in suppuration. Occasionally during the course of the disease, but generally during its subsidence, the testicles swell, or the mammae in the female; and in some cases the cerebral membranes become implicated, as also the gastro-enteric mucous membrane."

Chelius (*A System of Surgery*, by South, 1847, vol. i. p. 168) says, "As the swelling of the parotid gland subsides, a fresh attack of fever, with severe shivering, with pain in the loins and pubes, takes place, followed by inflammatory swelling of the tes-

ticles, and, in women, of the breasts and pubis. Other parts are also frequently attacked. Drowsiness, severe headache, wanderings, inflammatory or spasmodic affections of the breasts, active vomiting, dropsical swelling of the whole body, with short breathing and high fever, occur. The passage of this inflammation into suppuration . . . is very rare."

Watson (Lectures on the Principles and Practice of Physic, pp. 433-4) says, "Another curious circumstance connected with the disease, and one which has some bearing on its treatment, is that in many cases on the subsidence of the swelling of the neck and throat, and particularly when it subsides quickly, the testicles in the male sex become swollen and tender, and the mammæ in the female. But sometimes a more serious transference takes place,—from the testicle to the brain. This I have never witnessed; but then, to say the truth, I have not often been called upon to treat the mumps, and my personal experience of it is limited. Fortunately, the metastasis to the brain is much more rare than to the testicles."

Churchill (Diseases of Infants and Children) quotes Dr. Dewees, p. 415, as saying, "In the male we *once* saw the testes prodigiously enlarged. Much suffering was endured, and great hazard was incurred by the change. Violent fever and delirium accompanied this change of seat of the disease, and it required very active remedies to subdue them."

Churchill also says, "Again, a similar metastasis *may* take place, and the brain or its membranes become the seat of the secondary attack; and this is more frequent, Dr. Stewart thinks, in cases where no metastasis to the testes or mammæ takes place. This cerebral metastasis is highly dangerous."

Charles West (Diseases of Infancy and Childhood, 4th American edition, Philadelphia, 1866), says, "The occurrence of suppuration in the neighborhood of the gland is a rare termination of the inflammation, but is, I believe, oftener met with in children than in those who are approaching the period of puberty. On the other hand, metastasis of the disease from the parotid to the mamma, the testicle, or the brain, of all of which instances are on record by different writers, appears to be rare in proportion to the tender age of the patient. The most formidable of these metastases, indeed,—that to the brain,—would seem to be an accident very seldom met with; and neither of it nor of the translation of the disease to the mamma or the testicle can I say anything *from personal experience*."

Edward Ellis, M.D. (A Practical Manual of the Diseases of Children, with a Formulary, London, 1869, p. 184), says, "or, metastasis *may* occur, a remarkable feature of this disease to be remembered and watched for; and such metastasis may be either to the brain, which is highly dangerous, and exhibits itself either in coma or delirium, and may end fatally in a few hours, or to the mammæ of the girls and the testes of the boys."

Tanner (Practice of Medicine, American, from 5th London edition, 1866, p. 407): "Cynanche parotidea, or parotitis, or mumps, is a specific contagious inflammatory disease of the salivary glands,

and of the parotid gland especially. . . . When orchitis has occurred during the prevalence of mumps, it has usually been considered as the result of metastasis."

From the varied views, therefore, expressed by the authors quoted above, an opinion can scarcely be ventured; nor does clinical experience or therapeutics teach us the real nature of that anomalous affection called mumps. Clinical observation alone teaches us that ordinarily in mumps we have to deal with a very simple, tractable disease, and therapeutics develops the fact that remedies are not *always* necessary to guide it to a favorable termination. Yet now and then it becomes formidable, putting at defiance our knowledge, experience, and treatment, and seems to run rampant without let or hindrance, and to increase the violence and danger of other diseases, as epidemics of typhoid and catarrhal affections, in which it frequently mingles its specific character.

Thus it will be seen that—1. Most authors speak of parotitis as trivial. 2. Some regard it as a local, while others regard it as a constitutional disease, while still others state that in the present state of medical knowledge the question cannot be answered, though Virchow, and also Niemeyer, maintain that the affection starts in the gland-ducts of the parotid; and, more recently, Dr. Bouchut, in a note communicated to the Academy of Sciences by Claude Bernard, states that "parotitis is simply a salivary retention, due to catarrhal inflammation" (*New York Medical Record*, September 16, 1873, p. 454). 3. Therefore, while some discard the idea altogether of any metastatic influence, or even the word metastasis, as applied to it, others hold to the old opinion of metastasis. 4. Affections of the brain in the course of parotitis are mentioned by almost all writers as a probable result, and this seems to be simply an opinion passed from one to the other without proof or experience. All speak of it as of extremely rare occurrence. Some are candid enough to say they have never witnessed a case. 5. The few cases reported have all died within a few days. The cerebral symptoms increased, while the inflammation of the parotid decreased. In the case reported above, the cerebral symptoms seemed to begin when convalescence was about to commence,—after the commencement of the subsidence of the parotitis. 6. In regard to suppuration of the gland, one case came under my observation where both glands suppurated. See report of case in the *American Journal of the Medical Sciences*, vol. lii., 1867, p. 560.

CONTRIBUTIONS TO THE PATHOLOGY OF ADHERENT PLACENTA.

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WITH the hope of throwing some additional light on the nature of the causes and the pathology of adherent placenta, the history of six cases of this peculiar complication which came

under my own observation is given to the profession.

Two of these cases were in primiparæ. Three instances occurred in the same patient in three successive pregnancies. One was in a woman who had borne four children.

Case I.—M., a colored woman, aged about 22 years, being exposed much during the early months of her first pregnancy, contracted a subacute rheumatism, which continued to annoy her during the entire term. During the latter months of pregnancy pain and tenderness in a particular portion of the uterine region were present, which were attributed to rheumatic affection of the abdominal muscles.

After a tedious but otherwise natural labor, the placenta was found to be very firmly adherent to about one-half of its extent to the uterus. The adhesions were so strong that the adhering portion of the placenta had to be broken down and pinched off with the fingers, and removed in detached portions, the entire hand having been introduced into the cavity of the womb. The tissue of the placenta was not only indurated, but contained numerous points of calcareous deposit of various sizes. Alarming hemorrhage followed the operation. At the seat of placental attachment the uterine mucous membrane was evidently indurated, while a rugged exudative material was on its surface. In three or four days after delivery, a severe attack of acute articular rheumatism was developed in the joints of the lower extremities, which abated after several weeks' duration.

Case II.—Mrs. B., aged about 26 years, had pursued always a very active and industrious life, and had been subjected to much exposure, having been compelled to labor for her own support. Three or four years previous to marriage and pregnancy she had passed through a somewhat protracted attack of articular rheumatism, which had left some of the smaller joints enlarged. Her first labor, which was natural, was complicated by adherent placenta. A large portion of the after-birth, on introducing the hand, was found to be closely and firmly adherent, and had to be broken to pieces before detachment. This gave rise to copious hemorrhage. The structure of the placenta was filled with myriads of small calcareous deposits. Many of these little deposits adhered tenaciously to the thick exudation over the point of adhesion. After all of the adherent parts of the placenta had been removed, there still remained a rough membranous formation on that portion of the uterine surface, of almost cartilaginous hardness.

Case III.—This was a married woman, aged about 30, of the laboring class, and the mother of four children. Her labor was an easy one, but complicated with adherent placenta. An effort was made to remove the adhering portion, which was only partially successful, as the patient positively declined to submit to any further attempts. Consequently about one-fifth of the placenta was left in the uterus. For several days hemorrhage was troublesome. About the third day the lochial discharge became excessively fetid, which was soon followed by chill, fever, and great tympanites. The type of fever very soon, indeed almost from the beginning, assumed the adynamic form. For two weeks the discharge continued intolerably fetid, regardless of powerful deodorizers. Occasionally portions of decomposing placenta were discharged. Finally the discharges ceased to be offensive, and all the symptoms which but recently presented so grave a character speedily changed, and convalescence was soon established. This was manifestly a true case of septicæmic fever with inflammatory complication.

In many respects septicæmic fever resembles puerperal peritonitis, and is not always easily distinguished from it. The initiatory chill, fever, tympanites, and abdominal tenderness on pressure, are common to both. In simple septicæmia the symptoms of blood-poisoning from some septic cause, and presenting the gravest type of adynamia, are present from the beginning.

These symptoms always make their appearance simultaneously with an intolerably fetid character in the lochial discharge.

Nothing can be more intensely offensive than a putrescent decomposing placenta enclosed in a uterus, with a temperature varying from 98° to 106°. Thus the situation is peculiarly favorable in this living retort for the generation of offensive and poisonous gases.

These septic products are absorbed by the circulation as fast as generated, until the system is saturated. In these cases delirium, subsultus, dry and brown tongue, somnolence, vital prostration, are among the early symptoms; whereas in puerperal peritonitis the mind is generally clear, the tongue moist, and the strength not greatly impaired until the last, and, in truth, the peculiar features of adynamia are rarely present in the early stages of the attack. In one the vital fluid is first attacked with a dangerous poison, in the other the uterine and peritoneal structures with inflammation.

In regard to those peculiar cases, it is remarkable how small a portion of decaying placenta left in utero will become a source of septicæmia, and again how rapidly in a certain proportion of cases the septic symptoms will subside and the system recuperate after the cause is removed.

Cases have come under my own observation where small portions of placenta have been discharged in two or three days after labor, and after the placenta had escaped from the uterus by natural means, which doubtless had adhered to the uterus. In one case of natural labor, where the placenta had been expelled by natural means, and where to all appearances this body was perfect in form and appearance, in twenty-four hours a lobule was found protruding from the vagina, in every respect having the organized structure of the placenta, but distinct, and having a small pedicle which was the only means of connection with the placental mass, and which had probably adhered to the uterus. It appeared as a minute placenta.

Cases IV., V., and VI.—Mrs. R., a woman of 35 years, and the mother of three children, after a very protracted and severe attack of acute articular rheumatism which left one knee-joint completely ankylosed, and before complete recovery, became pregnant with her fourth child. During this entire pregnancy she continued to suffer from the rheumatic affection. In November, 1870, she was delivered of a living child, after a natural labor. The placenta was found to be very extensively and firmly adherent, probably to two-thirds of its surface. The medium of attachment was so tough and firm that it became necessary, in order to facilitate removal, to introduce the hand and break down the placenta, and remove it in detached portions. But the operation being a painful and tedious one, before completion the patient positively declined further inter-

ference, and consequently a portion of that body was left adhering to the uterus. During and after the operation, hemorrhage was very copious. The tissue of the placenta was softer than natural, and had apparently undergone a species of granular degeneration.

On the third day after delivery the lochial discharge became very offensive, and very soon chill and septicaemic fever of an adynamic type supervened.

The remains of the placenta occupied more than two weeks in dissolving and passing away. During this time the discharges were intolerably fetid. While this process was going on, the fever assumed the most serious and alarming type; but during the third week the lochia became natural, and the peculiar adynamic fever, which had reduced the patient to almost a hopeless condition, disappeared as if by magic.

In 1872 Mrs. R. again became pregnant, and was delivered of a living child. The placenta was found to be adherent in this instance also, but not to the extent as in the former case. All the adhering portion was carefully pinched off from the uterine surface. With the exception of some hemorrhage, no ill effects ensued.

It is proper to state here that the patient continued to suffer from rheumatic symptoms during this pregnancy.

In 1873 she again became pregnant. During this time she suffered considerably from her usual rheumatic affection.

In May, 1874, she was delivered of a large living child. On this, as on the two previous occasions, the placenta was adherent to fully one-half of its surface. The portion adhering was removed with the greatest care, by pinching every particle off. The medium of adhesion was composed of a very dense and tough exudation, apparently one-fourth of an inch thick. The hemorrhage was, for a time, quite copious.

While exploring the cavity during the operation, an indurated point was detected, very rugged and hard, and elevated above the mucous surface at least half an inch, and as large as the palm of the hand, surrounded with the soft and velvety mucous membrane of health, about the seat of the old placental adhesion. All of these adhesions were located in the front wall of the uterus.

In all of the cases of adhesive placenta which I have here reported, the females belonged either to the middle or lower classes, and were in the habit not only of performing daily labor, but also of frequent exposure to cold and wet.

During a practice extending over a period of more than twenty years, I have never witnessed an instance in the higher walks of life, or among the affluent. With but one exception, these females had been the subjects of a well-marked rheumatic diathesis.

Whether in these cases adherent placenta and rheumatic disease occupy the relationship of cause and effect, or, on the contrary, were merely coincidental, is a question of some interest. In five of the cases there were structural changes in the uterine tissue at the point of adhesion, indicating positively subacute inflammatory action of a circumscribed character; and though there was evidence also of degenerative change in the structure of the placenta, there was none of previous inflammation. But in the first case there were indications of organic uterine disease and placentitis, both associated in the same case. Two interesting questions naturally arise here: one, whether females who are the subjects of a rheumatic diathesis are more disposed to adherent placenta; the other,

whether or not the process of adhesion is the result of a local circumscribed inflammatory action of a rheumatic character, situated in the uterine tissue. The facts cited in the foregoing cases indicate very pointedly that the latter view is really the true one. There is another fact in connection with these cases, of interest: all of the children were not only living, but the most of them large and vigorous.

The history of these cases goes far to confirm the truth of the principle that evil consequences are infinitely more liable to result from leaving portions of placenta adhering to the walls of the uterus than from any mechanical injury inflicted during the operation of removing them from that organ; that while inflammation is rarely the consequence of the act of removal, septicaemia is the almost invariable result of leaving any portion in utero. It is astonishing how long a time a small portion of adherent placenta will require to undergo dissolution and discharge, and how little of it will act as a poisonous fountain to infect the system.

REPORT OF TWO CASES OF AMPUTATION IN WHICH A MODIFICATION OF THE ESMARCH APPARATUS WAS EMPLOYED.

BY J. EWING MEARS, M.D.,

Surgeon to the St. Mary's Hospital.

THE occurrence of paralysis of greater or less duration, consequent upon the employment of the Esmarch apparatus for bloodless operations, having been reported by Langenbeck, induced me, in the operations below reported, to substitute for the rubber tube as originally suggested by Esmarch a rubber band one-half the width of that which is applied to the extremity. This was done in the belief that the paralysis was caused by the direct and forcible pressure made by the tube over a limited surface, which it was hoped could be avoided by the use of the band, which would, as it were, distribute the pressure. It has been suggested, however, that it is not simply the pressure made by the tube which causes the impairment of nervous power in the part, but that accomplished by the entire bandage, applied as it is with firmness sufficient to expel the blood from the superficial and deep vessels of the part. Pressure so great as to accomplish this result must certainly affect both the large and the small nerve-trunks; at least, the benumbed feeling experienced after the application of the bandage would imply this.

In the cases thus far reported, the paralysis has disappeared under treatment which had to be continued for a variable length of time. It would therefore appear that whether the injurious effects were produced by the tube or by the tube and bandage combined, the pressure was not sufficient to destroy the integrity of the nerve-trunks and thus completely destroy their power of transmitting impressions. The experiments made by Dr. S. Weir Mitchell on the effects of pressure on nerves, and his remarks upon the subject in his admirable treatise on "Injuries of Nerves," are of interest in con-

nection with the conditions under discussion. In speaking of the mechanical influence of pressure, he says, "A nerve-trunk is made up of a multitude of tubes, the contents of which are so nearly fluid as probably to be capable of more or less movement to and fro. When to such a bundle we apply a tight ligature, no matter how soon it be relaxed, we annihilate at once all power of the nerve to transmit impressions past the injured zone. If, however, in place of this, we make *gradual and equal pressure*, we may so affect the nerve as for a time to destroy its power to carry impressions. Now, this is exactly what occurs in many cases of compression: the nerve is for a time incapacitated, but soon regains its normal abilities."

Even in the most exposed positions, as the median nerve in the middle third of the humerus, it is questionable whether the tube, applied with the firmness necessary to prevent the return of the blood to the vessels, could so far act as a ligature as permanently to injure the nerve. Without doubt it is capable of making such pressure as temporarily to destroy its power of carrying impressions. The band also applied to the entire extremity or the greater part of it makes forcible, but at the same time gradual and equal, pressure, and is quite sufficient, to my mind, to produce an interruption in the nervous current. It would seem, therefore, that paralysis both of sensation and of motion, to a greater or less extent, must necessarily follow upon the application of such pressure as will empty the deeper blood-vessels of a part and maintain them in this condition.

One of the cases in which the bandage was used being an amputation through the middle of the arm, it was of course impossible to gain any information upon this point from it. In the other the patient complained of numbness and loss of motion in the hand for ten days following the operation, although the bandage was applied only to the middle of the fore-arm.

Case I.—J. R., colored, æt. 37, has suffered from tertiary syphilis, losing cartilages and bones of the nose; at present is suffering from arthritis of the wrist-joint, which has undergone supuration and has resisted all methods of treatment. The elbow-joint is also involved, being much enlarged, and showing evidences of supuration within. The patient was placed upon tonic and specific treatment, which did not retard the progress of the disease and prevent deterioration of his health. The removal of the arm, so as to interrupt the constant drain upon his system, appeared to be the only plan of treatment which afforded any promise of success. In his wretched condition, destroyed as he almost seemed to be by the ravages of syphilis, it was a question whether interference with the knife would be followed by any reparative efforts on the part of nature. As will be seen, we were most happily disappointed in this respect. Covering the ulcerated surface with a compress (waxed paper is better), the wide band was applied, beginning at the fingers and continued to above the middle of the arm; the narrow band was then applied, and the wide one removed. Amputation by the anterior and posterior flap method was performed. The cut surfaces were perfectly bloodless-looking,—as expressed by one of the gentlemen present, like veal which had been well bled. Ligatures were applied to five arteries, which were pushed

out of the tissues, as it were, and were readily recognized. One small muscular branch was missed, and required ligature after the removal of the constricting band; slight oozing occurred, but was easily checked by the application of cold water; the flaps were sutured, and dry dressings were applied to the stump. Notwithstanding the most unfavorable surroundings, the patient recovered without an untoward symptom. The operation did not appear to produce any shock, the pulse maintaining a uniform rate and volume from the first. There were present at the operation Drs. Owen, U.S.N., Austin, Mann, Barr, Purcell, and Mr. Soder, medical student. To Dr. Purcell and Mr. Soder much credit is due for their faithful care of the patient.

In reviewing this case, it has occurred to me that the apparatus, by retaining to the system the blood contained in the arm, and preventing subsequent loss, contributed largely to success. The patient's condition was certainly such as forbade the loss of any great quantity of blood. None of the sequelæ attributed to the use of the apparatus occurred, such as excessive capillary oozing and sloughing of the flaps.

Case II.—Operation at Bedford Street Hospital, for removal of index-finger with metacarpal bone. A. S., æt. 32, German, twelve weeks previously had wounded index-finger with shoemaker's knife; sloughing of soft tissues, with necrosis of phalanges and metacarpal bone, supervened. Apparatus was applied, the narrow constricting band surrounding the middle of the forearm. The tissues were rendered bloodless, and the operation, which was tedious, owing to the condition of the parts and the desire to save as much of the hand as possible, was performed. Two vessels required ligation. After the removal of the constricting band, considerable capillary oozing took place, which was controlled by application of cold water. The parts were approximated by wire suture, and lint, wet with carbolic oil, was applied. The parts healed rapidly.

As stated above, impairment of sensation and motion in the hand followed the application of the apparatus, and persisted until the tenth day. Nothing was done to relieve it, and it spontaneously disappeared.

If we can reason from the facts in this case, it would appear that paralysis follows application of the narrow band as well as of the tube, but that, owing to the distribution of the pressure over a greater surface, the nerves are less affected and sooner regain their normal powers.

PYÆMIA IN THE HORSE.—Dr. Crombie reports (*Indian Medical Gazette*) a case of this disease occurring in a horse subsequent to an injury to the foot. The sore became phagedenic, the animal feverish, and at last gangrene and separation of the foot took place, followed by death. The post-mortem examination showed multiple abscesses, varying in size from a marble to a billiard-ball, scattered through the lungs and pleura, and in the former locality surrounded by a pneumonic condition. No abscesses were found elsewhere in the body. A breaking-down cheesy mass of degenerated gland-tissue was found in the axilla corresponding to the wound.

THE ACTION OF BROMIDE OF CALCIUM AND OF BROMIDE OF POTASSIUM.—The former salt acts only on the nerves, but it produces less sedative effect than the potassium bromide, and it does not act at all on the heart, as does the latter salt.—*Guttmann and Eulenburger. Ber. Klin. Wochenschrift.*

PHILADELPHIA MEDICAL TIMES.

A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

A MEDICAL CHARITY.

THE money which has been given in this city for charitable objects during the last two years amounts to so large a sum that we hesitate to suggest anything more at present.

We have, however, been induced—by seeing that Mr. Thomas Banting has left over \$100,000 for building a Convalescent Home, to be called the Banting Memorial—to cast some bread upon the waters, hoping it may return after many days in the shape of a handsome legacy or gift to charity. With the value of these convalescent homes our readers are as well acquainted as we are; it may be, however, that some have never noticed the complete barrenness of our city in this regard. Will not all do what they can to direct the minds of the wealthy and charitable in such direction?

AT the meeting of the Detroit Academy of Medicine, March 26, 1874, a communication was read from a corresponding member, calling attention to the explosive qualities of a mixture of carbolic acid, olive oil, and glycerin. The facts as stated were as follows: "In preparing a dressing for a contused and lacerated wound of the scalp, I poured into a four-ounce bottle about three fluid-ounces of olive oil, a drachm of liquefied carbolic acid, and two drachms of glycerin. The vial was duly labelled and corked, and carried about eight miles on horseback to the patient's house. About

thirty hours after its preparation, the vial, containing about one-half of the original amount, was standing upon a small table, in a room of ordinary temperature, surrounded by vials and sundry other articles,—among them a lighted kerosene lamp,—when a gentle explosion occurred, blowing off the top of the vial and spreading the compound uselessly around, but doing no further damage."

THE editors of *The St. Louis Medical and Surgical Journal* propose the following conundrum in alluding to one of our editorials upon the American Medical Association: "How could the Association go to an Eastern city without an invitation?" We give it up,—contenting ourselves with stating that the last meeting held in the East was in Philadelphia, and that an invitation for 1876 has already been offered. It is a somewhat remarkable and, we may say, disgraceful fact that no other Eastern city invites the Association,—a fact, however, which shows the want of interest in the Association east of the Alleghanies.

LEADING ARTICLES.

LEGISLATION FOR THE INSANE.

IT is a curious fact in the history of American legislation, one which has escaped the attention even of De Tocqueville, that the subjects on which our legislatures have most delighted to exercise their law-making privilege have not always sprung up sporadically, as it were, but have often prevailed epidemically, and exhibited that double phasis of other epidemics,—viz., of either being confined to a narrow locality, or pervading the whole country. Among our juvenile reminiscences of the Old Bay State was the fact, as patent as any gospel truth, that no member of the Great and General Court ventured to believe that he had fully discharged his duty to the State unless he had labored for some change in the militia laws or some new regulation for the taking of alewives in Taunton River. In these latter days the favored subject of State legislation has been the rights and privileges of the insane; and it has prevailed pretty extensively. The key-note to this movement is the popular conviction that insane people who are confined in hospitals are really not insane,—at least not many of them,—and that the officers of those institutions, the family of the patient, and physicians generally, are engaged in a conspiracy to tear people from their homes and confine them in prison on the false

pretence of insanity, for the purpose of accomplishing some scheme of wickedness. The great apostle of this new gospel has become qualified for her mission by several years of duty as patient in hospitals for the insane, and she believes that half the community will ultimately get shut up, unless every State places its hospitals, the patients, officers, attendants, and directors, under the supervision and control of a permanent committee of men and women, who may enter it when they please, hear the complaints of patients, sit in judgment on the alleged offences of officers and attendants, and distribute their censures with an unsparing hand. It being understood that all concerned in the management of these institutions are utterly untrustworthy,—even the directors who are appointed by the Executive from among those supposed to be best fitted for the duty by character and social position,—the patients are to be allowed to correspond as they please, with whomsoever they please, the letters in both directions to be unopened by the officers. This woman visits the State legislatures, and, with that sort of cunning which is only increased by insanity, she appeals to women of the strong-minded sort, and to men of no minds at all, by artfully playing upon their prejudices, to pass her bill. In Maine and New Hampshire (for her operations this year have been confined to New England) she is said to have succeeded. In Connecticut and Rhode Island she failed. The people of those communities "couldn't see it," as the phrase is. They said, If the board of directors who have been selected for their integrity and capacity require to be watched and called to account by a special board with paramount power, then, for an equal reason, this special board will need to be watched and controlled by another board, and so on *ad infinitum*.

In this State the legislation for the insane last winter was in another direction, and not inspired by Mistress Packard. Her turn, probably, will come next. An act was passed providing for the removal to the State hospitals for the insane of all prisoners in the jails and prisons of the State found to be insane, both those who were acquitted of crime on the ground of insanity and those who had become insane after conviction. The passage of the act, as might be supposed, was strongly opposed; for the idea of turning some scores of criminals into the abodes of the insane was not a matter of pleasing reflection. A letter was addressed to the General Assembly by most of the superintendents of the lunatic hospitals of the State, declaring in the strongest terms against the passage of the act,

and advising the construction of a hospital designed expressly for this class of the insane. Miss Dix, whose word ought to be law in whatever concerns the welfare of the insane, on hearing of the project, hastened to Harrisburg and opposed it with all the fervor of her earlier years. The bill was voted down at first, but, by one of those manœuvres which politicians know so well how to use, it was brought up again, and received the requisite majority.

That many of the "criminal insane," as they are called, should be confined in a manner very different from that of other convicts is not denied; but it is equally true that many of them need surroundings as strong and a discipline as strict as those of sane criminals. They are essentially and constitutionally criminals, their insanity being only a casual incident, rendering the criminal element in their character so much the more dangerous. They are the last description of people to be placed in intimate association with the ordinary insane, for their moral influence cannot be supposed to possess any healing virtues. In reply to this, the friends of the measure say that they are to be kept together in wards by themselves, and thus debarred from all intercourse with others. This only shows how little they know of the management of a modern hospital for the insane. Are they not to be allowed to work on the farm, or in the working-rooms of the house, to attend the service of the chapel, to witness the exhibitions or join in the amusements? If they are not to share in the privileges and appliances that characterize the present hospitals, wherein are they benefited by removal from the prisons? If safe-keeping and cleanly habits are all that their case requires, these, certainly, can be obtained as well in a prison as in a hospital. Even were it practicable and desirable to maintain such a separation,—to establish a prison within a hospital,—the result would be none the less mischievous, though in another direction. Such an arrangement implies an essential difference in the moral management. Kindness, no doubt, would be the ruling principle, but in the one case it would be marked by a lack of those indulgences proper enough in the other, and of that freedom and courtesy which distinguish the intercourse between the attendant and the ordinary patient. It needs little knowledge of human nature to see what would be the final result of establishing under the same roof and the same government two modes of management so radically different. One would soon partake of the features of the other, and the whole house would become either a prison with none of its securities, or a hospital demoralized by an intrusive and mischievous element.

Especially is this measure to be deprecated for its tendency to invest the hospital with disagreeable associations and thus increase the too common reluctance to seek its benefits. It has ever been considered as a great step gained in the cause of humanity, that it is now deemed all-important that the hospitals for the insane should be assimilated as nearly as possible to ordinary domestic abodes, and made attractive and pleasing by the little adornments of a refined taste. It has been regarded as one of the triumphs of the philanthropy of our time, that, under its benign influences, insanity has been stripped of the repulsive associations connected with it, and redeemed from the imputation of disgrace which has been so freely put upon it. Certainly, if anything is calculated to renew the old odium attached to insanity, and render its abodes hateful, it is this measure of discharging into them some of the worst elements of our prison-population.

There is another objection to this new act that ought to have had weight even with those who were disposed to make light of every other, for it is difficult to see how there can be two opinions respecting it. It is well known that our two State hospitals—one at Harrisburg, the other at Danville—are now crowded to their utmost capacity. Of course, to make room for the convicts, just so many of the present inmates will have to be discharged. We have supposed we were not behind our neighbors in true regard for the criminal classes, but it never occurred to us that their offences constituted a claim for superior privileges over those granted to the honest poor. If this is really so, then they whose sons or daughters have been sent home to make way for the convicts have only to incite them to commit some criminal offence in order to get them restored to the hospital. Enough has been said, we hope, of the mischievous consequences of this act, to convince every one not committed to it by some partisan spirit, that it is founded on a series of gross mistakes.

Another act was passed, providing for removal to the hospitals of such insane persons now in the county poorhouses as "cannot receive proper care and treatment, or are probably curable." The question is not to be asked if the hospitals have room for them, so that, of course, for every one of this description admitted, a present inmate must be discharged. Pauperism is made the ground of preference in this act, as criminality is in the other. In the matter of their support, the patients in our State hospitals are composed of two classes, viz., those who are maintained by the county to which they

belong, and those who are maintained by themselves or friends, the charge being the same in both cases. While there was room for all, all were received without distinction. At last, the applications for admission exceeded the capacity of the establishment, and some of them had to be rejected. In order to effect the greatest amount of good, the rule was adopted of taking only curable cases, whether supported by their friends or by the public. Such is the policy that has always been pursued by similar institutions in other States, in similar circumstances, simply because it is the dictate of common sense and common humanity. The friends of the act, however, favored with light not vouchsafed to common mortals, declare that this is all wrong,—that an incurable, provided that he is a pauper or a convict, should be kept in the hospital till the day of his death, rather than that a score of curables supposed to be yet endowed with ever so small an amount of worldly goods, should be treated within the same period, and restored to society. The objection to the latter—that which is to shut them out from the institutions which they have all their lives been taxed to support—is that they are able and willing to pay a trifle for their board. This circumstance, it seems, places them in the category of rich patients, and they are told to resort to the private asylums. The idea of such persons going to private or corporate hospitals would be perfectly ludicrous were it not perfectly heartless. It must have been suggested by the story of the little princess who, on being told that the people outside the palace were crying for bread, asked why they didn't eat cake. It is one of those facts in our social economy, known, we had supposed, to everybody pretending to any knowledge of this subject, that a very large majority of our insane come from the humbler classes,—from those who, by dint of industry and frugality, have acquired a trifle of property, and are thus able to meet an exigency slightly taxing their resources, without calling upon the public. This fact has been recognized all the country over, in the establishment of the State hospitals for the insane; for in every instance the price of board has been set at a very low figure, scarcely sufficient, indeed, to meet the current expense, in order that people of small means might be induced to avail themselves of the benefit of early treatment.

In many of the Western States, admission to the hospital has been made perfectly free to all, like the waters of life, without money and without price. The whole history of these institutions shows that they were not intended solely for paupers, but were also designed to meet a state of things mostly pe-

cular to our time, implied in the facts that insanity has become very common, that it occurs in a great degree among the poorer classes, that early treatment is all-important, and should be brought within the reach of people of the smallest means.

We ask the friends of this new measure what is to become of these paying patients who retire in order to make room for the paupers, and we are told that they must go to the private and other asylums that are paid for taking care of the insane. We have more respect for the understanding of these gentlemen than to suppose they clearly bear in view all that is implied in their reply, and believe it is given more to stave off an inconvenient inquiry than to meet squarely the exigency they have created. Our friend Dr. Given at Burn Brae might take in four or five, at \$18 or \$20 per week. The Pennsylvania Hospital would receive twenty, perhaps, at the minimum price of \$9, and the Friends' Asylum at Frankford might, possibly, make room for half a dozen more at the same price. The true reply to the question would be that they would be sent to their homes, whence, after exhausting the domestic patience and the domestic means, they would finally drift into the county poorhouse.

Such was the legislation of our State last winter concerning the insane. Our only hope is that those who are intrusted with the carrying out of the new laws will shrink from their complete execution, and thus mitigate the evil, until better counsels shall lead to their repeal.

I. RAY.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, MAY 27, 1874.

The PRESIDENT, DR. JOHN SWINBURNE, in the chair.

DR. WILLIAM H. CRAIG reported the following case of *puerperal convulsions treated with veratrum viride and chloral hydrate*: Mrs. S., æt. 24, primipara, married two years, of delicate constitution, frail and anæmic, was delivered of a male child weighing eight and a half pounds, March 30, 1874, after an easy and natural labor of ten hours' duration; the second stage only lasting three hours. After taking nourishing drinks, slept, breathed easy, and remained apparently quietly reposing for four hours after delivery, at which time she awoke and complained of nausea; in the act of vomiting went into a convulsion, which lasted about three minutes. Dr. Craig saw her soon after, when she had in his presence a second convulsion, which was characterized by the symptoms of puerperal eclampsia.

When the convulsive action ceased, the breathing became stertorous, with coma, which soon passed off;

unconsciousness and restlessness followed, and attendants were required to keep her in bed. Her pulse was 120 per minute, and full. She talked incoherently, and complained of headache. She had had hysterical spasm previous to marriage; a knowledge of this fact induced Dr. Craig to give bromide of potassium in twenty-grain doses every half-hour, without producing any modification of the symptoms, the convulsions occurring every fifteen or twenty minutes until six hours had transpired, when Dr. Quackenbush was called in consultation. He advised the use of veratrum viride, with chloral in combination. Squibb's fluid extract of veratrum was ordered, but in its absence the apothecary sent the official tincture. When the use of the tincture was commenced, convulsions were occurring regularly every twenty minutes; pulse 140, and full; fifteen drops of the tincture and twenty grains of chloral were given every fifteen minutes, with gradually increased doses, until nearly a drachm of the tincture and forty grains of chloral were given at a dose. In three hours $\frac{3}{4}$ of the tincture of veratrum had been given, yet the pulse remained unchanged, showing the inertness of the official tincture of veratrum. The convulsions were, however, gradually diminishing in frequency, now occurring every forty or fifty minutes, but were very severe. In four hours after commencing the tincture of veratrum Dr. Craig procured Burrows's fluid extract of veratrum, and administered gtt. 20, ten minutes after which the last convulsion occurred. In one hour thereafter he gave 20 gtt. fluid extract veratrum and 40 gr. chloral; pulse 108. In an hour and a half more gave 20 gr. of chloral and 6 gtt. fluid extract veratrum. In two hours after the combination was given the pulse was reduced to 70. The veratrum was then discontinued; the chloral was administered in from 40 to 20 grain doses until about thirty hours had transpired after delivery. The urine was then examined, and found to contain a small quantity of albumen, but no casts.

April 1, 9 o'clock A.M.—Had a quiet night; remained in a sleeping stupor, but could be aroused; had frequently taken nourishment; could answer questions, but not altogether conscious. The urine was drawn with catheter, and one-fourth grain of extract of elaterium was administered in two doses at intervals of three hours, which was followed by free catharsis. After this it was not necessary to give more medicine. The convalescence was rapid and complete. At the end of two weeks she was able to sit up more than half the time. Lactation took place naturally, and both mother and babe did well. In all, two hundred and eighty grains of chloral and forty-six drops of the fluid extract of veratrum viride and one ounce of the official tincture were given in the space of eighteen hours.

It is evident that the official tincture of veratrum is an unreliable preparation in such cases, as shown by the fact that one ounce of it was given to the patient in the course of four hours without producing any perceptible influence on the pulse, while the fluid extract of veratrum caused a decided reduction of the action of the heart upon the administration of the first dose, and in two hours diminished the pulse from 140 to 70 beats per minute. Dr. Craig said that he wished to direct the attention of the Society to the remarkable influence of the remedies combined in the treatment of a disease so fearful to contemplate, and so often fatal.

He had had occasion in an address before the Society to make the following remark: that he believed the next decade would develop many marvellous changes in our knowledge of therapeutics, in which practical medicine will become more demonstrative and less theoretical than heretofore. He thought the case presented might verify the statement made, for, according to his experience, the means formerly used in the treat-

ment of similar cases would not have saved this case from a fatal termination. It also confirmed the statement made by Dr. Squibb before the King's County Medical Society, when the use of veratrum in the treatment of eclampsia was under consideration. Dr. Squibb remarked, "The cases of puerperal convulsions reported here treated by veratrum proved to his mind that there is no fixed dose; the test must be the effect produced, and not the number of minims given."

"The tendency in therapeutics at present seems to be to get rid of the trammel of doses."

Dr. Craig continued, and said that very many cases of puerperal convulsions had been reported in the various medical journals treated by veratrum alone by numerous physicians, and quite successfully, and some fatal cases are mentioned where it seemed to him if the chloral had been combined with the veratrum a disastrous result might have been averted. Other cases have been treated by chloral alone; each remedy has its advocates. The *New York Medical Record* and the *Obstetrical Journal* contain numerous reports of cases treated by each remedy alone, but he had not seen where any case had been treated by the combination of both remedies.

If the pathology of eclampsia is considered according to the modern theory, which may be expressed in a single word, "irritation," we can then better appreciate the influence of the two remedies in controlling this disease.

Dr. Robert Burns, in a recent lecture in which he speaks of the treatment and etiology of puerperal convulsions, gives four cardinal points for guidance—viz., "1, to moderate central nervous irritability; 2, to cut off emotional irritants or excitants; 3, to cut off peripheral irritants or excitants; 4, to eliminate all complicating morbid conditions."

Dr. Radcliff, in a work recently published on disorders of the nervous system, advocates the theory that nervous irritation may be reflected to the nervous centres through irritation of the uterine nerves and excitation of the coats of the blood-vessels.

The chloral undoubtedly allays the irritation of nerve-centres, while the veratrum lessens the excitation of the coats of the blood-vessels by reducing the vascular action.

Dr. QUACKENBUSH said that the ideas expressed in reference to the cause of puerperal spasm are generally erroneous. It is generally supposed to be in some way connected with the kidneys. Albuminuria is often present in some stage of pregnancy or labor. Why it should appear at this time is not understood. The pressure of the gravid uterus on the ureters or renal vessels is not now the accepted theory. Fibroids distending the cavity and pressing on the kidneys do not produce it.

Barnes is of the opinion that the kidneys being overtaxed with eliminating excrementitious matter is the cause. We may have symptoms in the early stage without convulsions. Some think it is caused by nervous irritation. Whatever the cause may be, the consideration is to remove the great central irritability. Under these circumstances it is considered best to bring about labor as speedily as possible. The practice is not to use force; if necessary, rupture the membranes and wait for nature.

Chloroform is recommended, not to arrest spasms, but to prevent them. It is important to remove external excitants, that is, to exclude noise, light, loud talk, etc., and then use chloroform to blot out memory and render it oblivious to these circumstances. Again, remove all peripheral excitants; use no cathartics or blisters or cold water dashed into the face. By using veratrum and chloral we regulate the circulation and quiet the nervous system. Dr. Quackenbush was of the opinion

that chloral served a better purpose than chloroform. The veratrum diminishes the great action of the heart and circulatory system; when this is left unabated it facilitates the absorption of the poison carried through the circulation.

Dr. JAMES S. BAILEY said that at the recent meeting of the Pennsylvania State Medical Society this subject was discussed through reference to it by Dr. Atkinson in a paper in which he reviewed the progress of gynecology and obstetrics during the past year. The doctor advocated the use of chloral strongly. Distinguished physicians joined in the discussion, and among them Prof. Gross, who insisted that the dose must be at least thirty grains repeated frequently. Others employed it by the rectum when the stomach could not tolerate it.

Dr. Bailey also referred to a recent article appearing in the *Western Lancet* by Dr. Deane, who urges the advantages of chloral strongly, after an extended use of it. When eclampsia was suspected, fifteen grains of chloral were administered every twenty minutes until sleep was produced. He further recommended the use of the drug for thirty-six hours after labor is finished.

One case was mentioned in which two hundred and fifty grains were used in thirty hours, with the happy effect of controlling the convulsions and facilitating recovery. The patient was delivered with instruments. Her urine was impregnated with albumen, filling a test-tube half full after delivery; in forty-eight hours thereafter it had entirely disappeared.

The PRESIDENT inquired what proportion recovered when treated with these remedies.

Dr. W. H. CRAIG said that he had not noticed similar treatment in any of the medical journals, and inquired of Prof. Quackenbush if he had.

Dr. QUACKENBUSH said that he had not. He had, on the same day that Dr. Craig's case occurred, been called to see another case of puerperal eclampsia with Dr. Fowler. They had used two grains of chloral every half-hour. The patient made a good recovery. In this case spasms came on before delivery.

Dr. LORENZO HALE mentioned a case which had recently come under his observation, of protracted labor. He had found it necessary to give in the course of three days, to relieve the nervous irritability, between six and eight ounces of chloroform by inhalation. He had no doubt but that a considerable quantity was lost by evaporation. During this interval he had given, in addition, three hundred grains of chloral, in doses of fifteen to twenty grains at short intervals. Consultation was summoned, but the patient died. Dr. Vanderveer made the post-mortem examination. The uterus was found well contracted. On opening the stomach, a peculiar odor resembling chloral was perceptible, and the coats of the stomach separated like wetted brown paper. The impression was that the chloral had been instrumental in producing this effect.

Dr. SWINBURNE referred to the case of a girl who had died mysteriously, in Hudson. It was suspected that she had had an abortion produced. Her stomach was obtained and examined by a chemist, who found no cause for death in its contents. The same condition was noticed in this case. Dr. Swinburne was of the opinion that this condition was caused by a post-mortem change. This same stomach was submitted for examination to physicians in New York City, Dr. Clark and others, who thought the gastric juice had produced the softening of the coats.

Dr. VANDERVEER, when asked if he had ever noticed a similar condition of the stomach, said that he had, in the person of a besotted man who had died with delirium tremens.

Dr. J. B. STONEHOUSE spoke of the use of chloral in insane asylums, and in the event of death no unusual condition of the stomach had been found. He

mentioned one case where a patient had taken forty grains per day for at least seven months without producing any derangement of the stomach. So noticeable was the fact that it had suggested the propriety to the attending physicians of using chloral for indigestion.

Dr. JONES inquired whether any member had had experience in reference to the internal use of chloroform.

Dr. JAMES S. BAILEY said that he had, and had found it particularly serviceable in relieving acute spasmodic pain. He had frequently given teaspoonful doses, repeated in half an hour if necessary. Its first effect was to stimulate like alcoholics, and then came drowsiness and sleep. He had frequently seen patients while coming under the effects of it talk incoherently, but this would soon subside, and be succeeded by quiet repose.

Dr. F. C. CURTIS reported the following case of *tuberculous ulceration of the larynx*, and presented the pathological specimen of the same.

G. S., æt. 28, laborer, was first seen about three months before death. He came to the office complaining mainly of trouble in his throat,—did so at the earnest solicitation of his friends. He had been hoarse for a year back. This came on gradually, and for some time he had not been able to speak above a whisper. There was never much pain in the part. He had been engaged in herding cattle at West Albany yards, and the cause assigned for his throat-affection was shouting to the cattle while driving them.

His father said that he had been very intemperate in the use of his voice, straining it without reason. The same lack of care had been observed in other things: he had exercised violently, and then sat in a cool place chilling his body, or had drunk immoderately of cold water, and sometimes of alcoholics. He had not been excessive, however, in the use of the latter.

His father stated that he had had a cough for several years past, particularly after a slight exposure. For the last three years this had been more steady. He had been irregular as to the time of taking food.

Still, in spite of cough and dysphonia and utter disregard of health, he had, until recently, been a pretty strong fellow, and had never had any severe sickness. He had had occasional pain in the chest, more of late, which was not severe. He had, too, lost strength somewhat, and emaciated. Expectoration was and had recently been somewhat abundant. No night-sweats.

Having come principally on account of his throat, it was examined with the laryngoscope. There was found moderate œdema of the aryteno-epiglottidean folds on both sides, extending pretty uniformly around the glottis. The epiglottis was not affected, and a very good view of the cords throughout, with their surroundings, could be obtained. A large ulceration was found on the right side, posteriorly, over the arytenoid cartilage, affecting the posterior third of the vocal cord, but having its centre above it in the ventricle. Phonation was prevented by the inability to bring the two vocal cords in contact, from loss of substance and circumscribed action of the left cord. The ulcer was quite deep, but not abrupt; nor was there thickening or granulation of the edges. Outlines were ragged. No apparent discharge. Surrounding it were congestion and moderate œdema, but no other lesion was discovered. Anæsthesia of the throat generally was somewhat noticeable, as the first examination was readily borne.

Examination of the lungs showed consolidation at both apices, and fluid in the bronchi. His general appearance was fair.

Treatment was directed solely to his general condition. Tonics and cod-liver oil were given, and directions as to care of himself. He came to the office at irregular intervals for a few times, no particular change

being noticed. He then ceased to report himself, and occasional word was brought that he was failing. It is probable that he took but little care of himself. He gradually failed in strength, and night-sweats, very profuse, with severe hectic fever, came on.

Called to see him near the end of February, six weeks before he died. Found the affection of the lung had extended very rapidly, and was far advanced from the condition of a month before. Mucous and submucous râles were heard all over both lungs, and there was evidence of cavities forming at both apices. Cough was harassing and constant, expectoration being very abundant. He had but little pain, but was unable to sleep from cough and sweating at night. The latter was checked somewhat by sulphuric acid and hyoscyamus. The bowels were not affected. There was no change in throat-symptoms. From this time the disorganization of the lungs advanced rapidly. He emaciated, and œdema of the face and extremities came on. He kept about the house to the last, and rode down town in a car a fortnight before he died. He was perfectly conscious to the last.

Died April 7.

Post-mortem twenty hours after death. Body much emaciated, and extremities œdematous.

Thorax.—Both lungs were bound by very firm adhesions to the chest-walls for the upper third, lung-tissue tearing up on attempting to separate them. This was more extensive with the right lung, and at one point there was a ring of adhesions two inches in diameter, into which a cavity of the lung had perforated, matter and air oozing out as the lung was removed, at this point, which was under the scapula.

There was a small amount of effusion into both pleural cavities.

There were deposits of tubercles throughout both lungs, studding them so abundantly as almost to solidify the tissue in parts. This was mostly of miliary size; but there were masses of the size of a hazel-nut. In the lower lobes there were recent gray tubercles; farther up they were caseous at the centre and at the upper fourth of both lungs, but more of the right. There were very many cavities, some being filled with caseous matter, simply as if just transformed from tubercle, others containing more or less purulent matter. Some were quite large, with ragged sides, and filled with pus and mucus. Muco-purulent matter exuded from the lungs on section, extensive tracts not being aerated. Only a small portion of the lower lobes along the anterior edges crepitated normally on the right side, and the edges of both lower and upper of the left.

Examination of the larynx disclosed a large ulcer on the right side, at the posterior extremity of the vocal cord, ventricle, and false cords. It was quite deep, extending into the soft tissue above the cricoid cartilage. Anterior to the arytenoid it extended deep down towards the wing of the thyroid. It did not involve much of the cord, not cutting entirely across it, though a sinus ran in back of it. The outline was irregular, but the sides were pretty smooth. A spherical ulceration of the mucous membrane surrounded this, the whole being about the size of a five-cent piece. Of this, the ulcer proper occupied rather more than half.

Directly opposite this ulcer, at a corresponding point of the left side, was a still deeper ulcer, but not affecting the vocal cord by ulceration even of its mucous membrane.

It was in the ventricle, and was a mere slit in its long diameter, a third of an inch in length. It was on the line of the superior border of the cricoid cartilage posteriorly, extending back nearly to it. It could only be seen by separating the parts, being closed and invisible in a natural condition of the tissues. Extending

upward from it was a considerable superficial ulceration of the mucous membrane. The entire inner surface of the larynx was swollen, the cords, both true and false, being thickened so as to be hardly recognizable, and almost obliterating the ventricles. The anterior surface of the larynx was not so much affected, and the epiglottis was hardly at all thickened.

There was considerable œdema of the tissues between the cricoid and thyroid cartilages, probably induced by the ulcers extending deep into them.

In the trachea there were a few quite superficial ulcerations or erosions of the mucous membrane. In one point only, low down towards the bifurcation, there was one that appeared to go nearly down to the cartilage.

The heart and the abdominal organs were healthy.

A few words in regard to this somewhat rare affection may, perhaps, not be out of place. First, in regard to the propriety of the term "tubercular ulcer." It is a question in debate whether the morbid process by which these ulcers exist is really tubercular,—i.e., whether they are due to the deposit of tubercle in the tissue, which, breaking down, causes a destruction of tissue, or whether they are simply the results of inflammatory action. Apart from any heterogeneous deposit, Virchow says tuberculous ulcers do actually originate from miliary tubercles. The absence of them so frequently, which leads other observers to deny altogether their presence in connection with ulcers, he explains by the perishable nature of these deposits. He asserts that he has found them himself.

Kindfleisch allows that they may be developed from tubercle, led to do so partly by the assertion of Virchow, and partly from having himself observed in microscopical sections vertically through ulcers, clusters of cells situated well below the surface, in the midst of connective tissue still intact, which remind him strongly in their behavior of miliary tubercles. "These tubercles, however," he says, "are so sparingly disseminated and appear so insignificant in comparison with the inflammatory infiltration of the ulcerated surface itself, that I would only regard them as a pledge of the connection of the morbid changes with constitutional tuberculosis. At most they could only be raised to the dignity of permanent inflammatory irritants." (New Sydenham Publications, vol. liv.)

Niemeyer seems to believe in the tubercular origin of these ulcers. He says the severity of the cough cannot account for them, for it is often more severe in mere bronchial affections. Neither for the same reason can they be said to originate from foul acrid secretions from large cavities.

Their anatomical appearance, too, as described by him, indicates this opinion. "We first observe," he says, "gray, round granules the size of a millet-seed, which turn yellow, soften, and disintegrate, leaving a small round ulcer."

"Fresh deposits in the vicinity occur, and the resulting ulcers run together, forming an irregularly-shaped loss of substance. More frequently, though, we first notice a yellowish discoloration, which the microscope shows to be an infiltration with small cells."

"The mucous membrane becomes relaxed, and a shallow ulcer follows, which may afterwards extend very deep."

Türk, of Vienna, whose authority in affections of the larynx is received with great respect throughout Germany, though he has now been dead several years, says that deposit of tubercle is not often the direct cause of these ulcers, yet that it is beyond a doubt that a certain number of them are due to it. The most common cause is catarrhal and follicular inflammation.

Cohen, of Philadelphia, is very doubtful as to tubercle being deposited here, and would regard the small white pin-head points described as miliary tubercle as,

in most cases, enlarged follicles. (Cohen, Diseases of the Throat, p. 357.)

Other observers utterly refuse to allow that tubercle is present or participates in these ulcers.

But it is not necessary to quote the opinions of a long list of authorities on this subject, which is of no great practical importance in the direct consideration of these ulcers. It has occurred to me, however, that it might be a good field to study tubercle itself, and might throw light on the now widely-discussed pathology of this heterologous formation.

The general opinion held by most of the best authorities seems to be that a limited number of the ulcers occurring in the larynx with phthisis are caused by a direct deposit of tubercular matter.

Ulcers may occur in the larynx from a variety of causes. Besides the one under consideration, there are those due to syphilis, to inflammation of the mucous membrane, either catarrhal or of the glands, to diphtheria, cancer, etc. The diagnosis of the ulcer of tuberculosis from all the rest is particularly desirable, inasmuch as the treatment is quite the opposite from most of them: while other ulcers may be made to heal only by severe treatment,—cauterization, perhaps,—these are to be let alone, or to be soothed by sedatives and protectives. But the appearance presents little that is characteristic, so far as I have been able to learn. Any of them may be superficial, or deep and extensive. There are, however, certain guides to a satisfactory conclusion.

The ulcers of cancer are accompanied by lancinating pain, the absence of which may exclude it, also the locality of the cancer-ulcer, which affects preferably the anterior portion of the larynx when affecting it alone.

The most common variety of cancer met with here, according to Rokitsky, is the epithelial, this being a favorite location for its development. The diagnosis lies mostly between it and syphilis, which it resembles more than other ulcers.

Between tubercular and syphilitic ulcers the diagnosis may be, in a measure, reached by the locality. Syphilis attacks most commonly the epiglottis, and hardly ever the vocal cords. Tubercular ulcers are found more at the posterior portions of the larynx, affecting the false and true cords, and the vestibule, rarely attacking the cartilages, and seldom attended with much œdema, both of which occur with syphilitic ulcers. Trousseau says that a dusky color of the membrane is diagnostic of syphilis. Aphonia is more complete in tubercular than in syphilitic ulcerations.

An ulcer seated on the posterior portions of the larynx, attended with only moderate œdema, causing more or less complete aphonia, lasting perhaps for a long time without producing great destruction of tissue, the pain of which is of moderate severity or but little noticed, and finally coexisting with phthisis of the lungs, may be called a tubercular ulcer. I think this is about a fair picture of it. Only a small portion of the cases of sore throat with phthisis are due to ulceration, the existence of which can only be made certain by the laryngoscope.

A word only in regard to treatment. I think but little is called for locally. The ulcers are very seldom of themselves the immediate cause of death, and probably only by opening into the œsophagus. Their tendency is, after advancing to a certain point, to remain stationary, producing but little serious inconvenience. Such is the result of my own limited observation of them. The general treatment of phthisis will, of course, be given. Locally, only such remedies are called for as will relieve them of irritation. Cough should be combated, as an evident irritant. Morphia is sometimes applied locally. Nitrate of silver in solution is said by Niemeyer to alleviate the cough, a bit of

sponge being dipped in it and squeezed over the entrance to the glottis. Cohen speaks of inhalations of carbolic acid; but I believe that when no great disturbance is caused by the ulcer no local treatment is called for; nothing but general building up of the system, which we always attempt to effect in consumption of the lungs.

GLEANINGS FROM OUR EXCHANGES.

INSTRUMENT FOR DETERMINING THE CALIBRE OF THE URETHRA AT ANY GIVEN POINT.—Dr. F. N. Otis, of New York, communicates to the *London Lancet*, July 11, a description of an instrument devised by himself and intended to serve as a gauge of the normal urethral calibre, and also to measure that of strictured portions of the tube. The instrument, a drawing of which accompanies Dr. O.'s communication, is practically a sound, having a gauge at its distal extremity and an indicator near the proximal or external end.

"It consists of a small straight canula (No. 8, F) terminating in a series of short metallic arms, hinged upon the canula and upon each other. At the distal extremity where they unite, a fine rod, running through the canula, is inserted. This rod (which is worked by a stationary screw in the handle of the instrument), when retracted, expands the arms into a bulb-like framework 10 mm. in circumference when closed, and capable of expansion up to 40 mm. A thin rubber stall drawn over the end of the closed instrument protects the urethra from injury, prevents access of secretions to the interior of the instrument when expanded, and completes the bulbous appearance of the dilating apparatus.

"When this instrument is introduced into the urethra and expanded up to a point recognized by the patient as comfortably filling his urethra, the hand on the dial will indicate the calibre of the canal at the point occupied by the bulb; moving this gently backwards and forwards, the tactile sense of the operator, by the aid of the screw at the handle, will give a fair knowledge of the capacity and condition of the presenting canal."

DEATH FROM CARIES AND DISLOCATION OF THE ODONTOID PROCESS (*Lancet*, July 11).—A post-mortem examination was made recently at St. Thomas's Hospital in the case of a patient, a young man, who had suffered for some months with soreness in the neck, accompanied by stiffness and difficulty of motion. Within the three weeks previous to his death he began to experience pain in the neck, especially on bending the head forward. This was followed shortly after by numbness in the left hand, and later, in the arms and legs with a pricking sensation. His breathing soon became difficult, his face blue, and he died on his way to the hospital.

At the post-mortem examination, on the body being opened, all the internal viscera were found to be quite healthy; and, on opening the skull, the brain was also found perfectly healthy; but, on close inspection of the interior of the skull, the odontoid process of the axis was found filling up the foramen magnum, having ruptured the check and the transverse ligaments, perforating the meninges of the cord, and pressing upon the spinal medulla. The lower part of the medulla oblongata at the seat of pressure was softened and pulpy, and a collection of matter had found its way between the membranes and the cord. The occipito-atloid articulation of the left side was carious and entirely disorganized, and occupied by an abscess cavity, which had probably burst at a point where the odontoid process had perforated the dura mater. The posterior part

of the anterior arch of the axis, as well as the anterior edge of the foramen magnum, was also carious.

ELIMINATION OF ALCOHOL.—In *The Practitioner* for July, Dr. Anstie gives the results of final experiments made by himself and Dr. Dupré, with the view of ascertaining as nearly as practicable whether alcohol to any appreciable extent escapes unchanged from the body of an animal which has ingested it. The animals chosen for experiment were dogs, which approach most nearly to man in their capacity for resisting the effects of alcohol. The experiments were performed by the aid of a Pettenkofer's chamber, in which the animal was confined, while a current of air passing through the box was condensed in water. By this means all its excretions could be obtained and analyzed.

The result of a series of these most carefully conducted experiments, including one where the entire animal was subjected to a sort of "destructive distillation," proves conclusively that within certain limits alcohol ingested by an animal becomes totally metamorphosed within the system, the percentage eliminated as such being almost inappreciable. Dr. Anstie concludes that quite six hundred grains of absolute alcohol can be disposed of daily within the organism of an adult male without any perceptible injurious effect upon the bodily functions.

If alcohol be a force-producing food, it is probably of great value in that capacity, on account of the rapidity with which its transformations take place.

It is certain, however, that beyond a certain dosage, varying for the individual, it becomes a violent narcotic poison, the more dangerous that it cannot be eliminated to any considerable extent.

If alcohol does not disappear by oxidation, it must undergo some as yet quite unknown transformation, after which it must escape unrecognized in the excretions.

If alcohol, however, be indeed oxidized, and yet does not beget force which can be used in the system, this would be the strangest possible discovery. Considering the very high theoretical force-value of the six hundred to eight hundred grains of absolute alcohol which millions of sober persons are taking every day, we may well be hopeless of any reasonable answer to the question, Why does not this large development of wholly useless force within the body produce some violent symptoms of disturbance?

CASE OF PHTHISIS WITH UNCONSCIOUSNESS FOR FIFTEEN MONTHS.—Dr. B. F. Scull reports, in a recent number of the *American Medical Weekly*, a case in which a man who had been suffering from severe bronchitis, with symptoms of incipient phthisis, for several months, fell into a condition resembling catalepsy. Although eating and drinking whatever was offered, he seemed entirely indifferent as to the character of the food, and wholly unconscious of his surroundings, of his condition, of what he was doing, or of what was being done for him. His fæces were passed into a diaper, and it was necessary to keep him cleansed without any co-operation on his part.

After remaining in this condition for some fifteen months, he suddenly recovered consciousness, but fell into a rapid decline and died a year later.

DEEP INJECTION OF CHLOROFORM FOR THE RELIEF OF TIC DOULOUREUX.—Dr. Roberts Bartholow communicates to *The Practitioner* (June, 1874) an account of several cases of this painful affection treated successfully by hypodermic injections of chloroform.

The infra-orbital branch of the nerve was the seat of the tic in the cases reported, and Dr. B.'s operation consisted in passing the needle under the upper lip in the direction of and near to the infra-orbital foramen, and

then injecting from ten to twenty minims of pure chloroform. Considerable pain at first ensues, followed by a feeling of numbness and anæsthesia of the parts into which the chloroform diffuses. A puffy swelling quickly forms at the site of the injection, and an induration which lasts for several days follows. One very severe case operated upon in this manner gained relief from one injection covering a period of months.

POISONING BY COAL-GAS.—Dr. William Taylor, in a communication published in the *Edinburgh Medical Journal* for July, gives a number of interesting cases of this form of poisoning, from his own practice and that of others, including quotations from a monograph by Dr. Tourdes, of Strasburg. From the latter Dr. Taylor quotes the following list of characteristics, with which his experience agrees:

Post-mortem characteristics of poisoning by coal-gas: 1, coagulation of the blood; 2, its deepened tinge; 3, extreme brilliancy of coloration of pulmonary tissue; 4, abundance and nature of froth in the air-passages; 5, intensity of cerebral congestion; 6, engorgement of vertebral nervous system and extravasation of coagulated blood in the spinal column; 7, vivacity of injection of the mucous surfaces at base of tongue; 8, occasional rose-colored patches on thighs.

The morbid phenomena accompanying the action of the gas are thus classified in the order in which they occur:

1, insidious invasion—premonitory symptoms of variable duration; 2, headache and vertigo; 3, nausea and vomiting; 4, affection of intellectual faculties, involving absolute loss of consciousness; 5, general debility, prostration of strength, partial paralysis, convulsions; 6, phenomena of asphyxia, appearing slowly, but complete and predominant during the last moments of life.

GALVANISM IN AMENORRHEA.—Dr. Jas. Whittaker (*The Clinic*, July 25) relates a case of obstinate amenorrhœa occurring in an otherwise healthy female aged 22 years, in which, after all other means of relief had failed, the interrupted current from a battery of twelve elements induced the menstrual discharge. In applying the current, the positive electrode was placed over the fundus uteri externally, and the negative, a fine gold-pointed wire, was introduced within the cavity of the uterus.

TREATMENT OF ERYSIPELAS BY SUBCUTANEOUS INJECTION OF CARBOLIC ACID.—Dr. Aufrecht practised injections of carbolic acid in doses of 0.60 centigramme in ten cases. Not only were the erysipelatous swelling and redness rapidly dissipated, but the temperature, pulse, and general health were remarkably improved.—*Centralblatt*.

MISCELLANY.

FOUNDLINGS.—The proportion of foundlings in France is rather considerable, so much so that the Council General of the department of the Rhône offer a prize of \$400 for the best essay on Foundlings. The following points are simply recommended to authors, though the Council grant them full liberty. 1. Causes of the abandonment of children. (a) What are the results obtained by statistics? (b) Do social, political, and religious conditions act upon the number of foundlings? (c) Were children left to public mercy among the ancients? Can the time be fixed when the forsaking of children, exceptional in antiquity, took a great propor-

tion, and under what social and religious influence has such increase taken place? 2. By what measures could the number of foundlings be diminished? What becomes of them? Establish a parallel between the moral and physical conditions of foundlings and other children. 3. By what means could foundlings be morally and physically improved? How could mortality among them be diminished? And how could their ultimate fate be ameliorated? 4. Which is the best manner of taking care of them? What has been the result of the suppression of turn-stiles? And how should we view such suppression?

TO INCREASE THE ADHESIVENESS OF GUM ARABIC.—Concentrated solution of gum arabic as a mucilage possesses the disagreeable property, when spread upon printing or other paper not strongly sized, of penetrating them to transparency and in spite of this not making them adhere to other paper. Paper cannot be attached to common pasteboard, nor wood to wood. Paper pasted with mucilage on metallic surfaces usually falls off soon. The use of gum as cement for glass, porcelain, or earthenware, etc., is entirely impossible.

All these disadvantages of mucilage are remedied when an aqueous solution of sulphate of aluminium is added. For two hundred and fifty grammes of the concentrated gum solution (prepared with two parts of gum and five of water), two grammes of crystallized aluminium sulphate will suffice. This salt is dissolved in ten times its quantity of water, and mixed directly with the mucilage, which in this condition truly deserves the name of *vegetable glue*. Solution of alum serves the same purpose, but far less efficiently.—*Druggist's Circular and Chemical Gazette*.

NOTES AND QUERIES.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

I see by your issue of July 25 that Dr. W. B. Atkinson claims priority over Dr. Bernardy in the use of *chloral hydrate* for the mitigation of *puerperal eclampsia*. He claims to have used chloral for this purpose in October, 1871. My partner, Dr. H. A. Schell, gave chloral to Mrs. Buck for *puerperal eclampsia* March 9, 1871. We subsequently gave it to Mrs. Sone, a primipara, for this purpose, September 26, 1871,—sixty-grain doses by enema till consciousness was restored, then gave twenty grains by the mouth every two or three hours as long as any nervousness remained. You will observe, therefore, that we have two cases anterior to the date of Dr. Atkinson's case in October.

Very respectfully,

H. B. MALONE, M.D.

GALLATIN, TENNESSEE, July 30, 1871.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM AUGUST 4 TO AUGUST 10, 1874, INCLUSIVE.

HARTSUFF, A., ASSISTANT-SURGEON.—Leave of absence extended twenty days. S. O. 57, Military Division of the Missouri, August 4, 1874.

WIGGIN, A. W., ASSISTANT-SURGEON.—Assigned to duty at Fort Stevens, Oregon. S. O. 98, Department of the Columbia, July 29, 1874.

WOODRUFF, E., ASSISTANT-SURGEON.—Leave of absence extended three months. S. O. 168, A.G.O., August 3, 1874.

McLAREN, A. N., SURGEON.—Died August 1, 1874, at Boston, Mass.